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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TANG, KENNETH

ART UNIT	PAPER NUMBER
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2195

MAIL DATE	DELIVERY MODE
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06/05/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

09/876,645

Applicant(s)

SUN ET AL.

Examiner

Kenneth Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is in response to the Response on 4/4/07. Applicant's arguments have been fully considered but are moot in view of the new grounds of rejections.
2. Claims 1-36 are presented for examination.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
4. In newly amended independent claims 1, 9, 17, 22, 27, and 32, the limitation of the "second workflow engine alone completes the workflow" is not supported in the Specification.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**5. Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al. (hereinafter Campbell) (US 2001/0024497 A1) in view of Sasou et al. (hereinafter Sasou) (US 5,463,208), and further in view of Bacon et al. (hereinafter Bacon) (US 2002/0052771 A1).**

6. As to claim 1, Campbell teaches a method to be performed by a data processing system to improve fault tolerance ([0044], Abstract) comprising:

providing distributed queuing of workflows (workflow manager), whose execution is requested by one or more execution-requesting clients, among a plurality of workflow engines (*page 5, [0084], page 6, [0085]*);

7. Campbell teaches a first workflow engine for an execution-requesting client. Campbell is silent on sending an explicit and delayed acknowledgement only if a workflow is successfully completed, else assigning the workflow to a second workflow engine by sending it a workflow assignment message.

8. In the Applicant's specification, "workflow" is defined to have a starting task and a finishing task with the possibility of intermediate tasks. Applicant also defines the "explicit and delayed acknowledgements" to be notification when the final task is successfully completed. One of ordinary skill in the art would know that if a task is finished completing, it is successful in completing the task.

9. Sasou teaches processing tasks and workflows (first task through last task) wherein notification occurs when the last task is completed (*see Abstract, col. 7, lines 9-12, etc.*). The notification in response to the last task completed satisfies the Applicant's definition of an

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explicit and delayed acknowledgement.. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Campbell with Sasou because it would reduce loading and costs (*col. 2, lines 4-10, etc.*).

10. Campbell and Sasou are silent on assigning workflow to a second workflow engine by sending it a work assignment message, wherein the second workflow engine alone completes the workflow.

11. However, Bacon teaches one or more workflow engines (115a, 115b) that cooperate with each other to determine whether subsequent activity is needed to complete the activity and then make the assignment to complete the workflow ([0032], [0055]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Campbell and Sasou with Bacon because it improves coordination and cooperation among workflow elements in order to efficiently complete workflows ([0032], [0055]).

12. As to claim 2, Campbell teaches wherein providing is performed by a load manager (workflow manager) (*page 5, [0084], page 6, [0085]*).

13. As to claim 3, Campbell teaches wherein the load manager comprises a commercially available middleware product (*page 15, [0208]*).

14. As to claim 4, Sasou teaches notification (*see Abstract*) and Campbell teaches wherein the explicit and delayed acknowledgement can be performed by email [0093]. It is well known in the art that messaging from email, for example, can be certified. It would have been obvious

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to one of ordinary skill in the art at the time the invention was made to include the feature of certified messaging because this provides a guarantee in the delivery.

15. As to claim 5, Campbell teaches that all communication types are workflow enabled and pass through the load manager (workflow manager) (*page 5, [0084]*).

16. As to claim 6, Campbell teaches wherein the load manager comprises a commercially available middleware product (*page 15, [0208]*).

17. As to claim 7, Campbell teaches wherein the certified messaging capability is performed by a certified message receiver forming part of the workflow (*page 1, [0004], page 5, [0084]*).

18. As to claim 8, Sasou teaches sending an explicit and delayed acknowledgement to the execution-requesting client if the workflow is completed by the second workflow engine (*see Abstract, col. 7, lines 9-12, etc.*).

19. As to claims 9-16, they are rejected for the same reasons as stated in the rejection of claims 1-8, respectively.

20. As to claim 17, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Campbell teaches the computer operating in a fault-tolerant manner and requesting a

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workflow execution on behalf of a client (*page 2, [0043] and [0044], page 4, [0061] and [0063]*).

21. As to claims 18-22, they are rejected for the same reasons as stated in the rejection of claims 2, 4, 7, 8, and 17, respectively.

22. As to claim 23, it is rejected for the same reasons as stated in the rejection of claims 1 and 2.

23. As to claims 24-27, they are rejected for the same reasons as stated in the rejection of claims 4, 7, 8, and 17, respectively.

24. As to claims 28-33, they are rejected for the same reasons as stated in the rejection of claims 2, 4, 7, 8, 17 and 23, respectively.

25. As to claims 34-36, they are rejected for the same reasons as stated in the rejection of claims 4, 7 and 8, respectively.

### ***Response to Arguments***

26. During patent examination, the pending claims must be “given their broadest reasonable interpretation consistent with the specification.” *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). Applicant always has the opportunity to amend the claims during

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prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).

27. *Applicant argues that in Sasou, there is a notification sent whether recording is successfully completed or not, which is different than the claims indicating that an explicit and delayed acknowledgement is sent only if a workflow is successfully completed.*

In response, in the Applicant's specification, Applicant defines the "explicit and delayed acknowledgements" to be notification when the final task is completed. The Abstract of Sasou states that "the notification section supplies a processing completion signal indicating completion of the series of tasks to the main CPU when the last task is completed". This teaching of Sasou satisfies the Applicant's definition of an explicit and delayed acknowledgement. Applicant argues that Sasou's invention teaches also giving notification even at times when not successfully completed, which is different than the claim language which sends an explicit and delayed acknowledgement only if a workflow is successfully completed. However, those particular notifications in response to non-completion are not an explicit and delayed acknowledgement. The notification of successful completion is an explicit and delayed acknowledgement. All other notifications are not explicit and delayed acknowledgements.

In addition, one of ordinary skill in the art would know that if a task is finished completing, it is successful in completing the task.

### ***Conclusion***



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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kt  
5/16/07

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